

# Oral Health Care Utilization Among Adults with Disabilities in Rhode Island

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## Background

- Oral health is an essential and integral component of health throughout life. Poor oral health and untreated oral diseases and conditions can have a significant impact on quality of life.
- Millions of people in the US are at high risk for oral health problems because of insufficient preventive dental care.
- Prior studies have shown that people with disabilities are less likely to utilize oral health care services than people without disabilities, but the relationship is not clear because of possible confounding factors.

## Objectives

- To estimate the prevalence of regular dental care among Rhode Island adults.
- To assess the differences in regular dental care by socio-economic-demographic characteristics, including disability status.
- To determine the association of disability status with oral health care utilization, while controlling for socio-economic-demographic factors and dental insurance status.

## Methods

- Data Source:** 2004 RI Behavioral Risk Factor Surveillance System (BRFSS).

The BRFSS is an ongoing, state-specific, telephone survey of non-institutionalized adults (18+ yrs) to monitor the prevalence of key health and safety related behaviors. The 2004 RI BRFSS consisted of 3,999 completed interviews with a response rate of 39%.

- Oral Health Care Utilization:**

Respondents were classified as not having regular oral health utilization if they did not visit a dentist or a dental clinic within the past 12 months.

- Disability Status:**

Persons were classified as having a disability if they reported having an activity limitation, using special equipment due to a health problem, or having difficulty learning/remembering/concentrating.

- Statistical Analysis:**

Data were weighted to reflect the RI adult population, and all analyses were performed using SUDAAN statistical software to account for the complex survey design.

Bivariate analyses and multivariate logistic regression models were employed to determine the association between disability status and oral health care utilization.

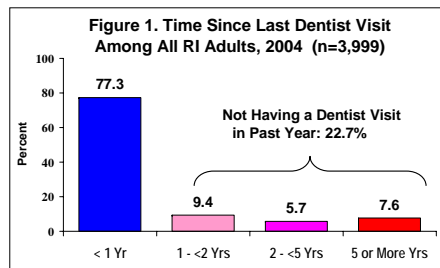


Table 1. Percentage of Persons Not Having a Dentist Visit in the Past Year by Selected Characteristics

	n*	Percent <sup>#</sup>	(95% CI) <sup>#</sup>
<b>Disability (p=0.0000)</b>			
Have Disability	924	30.1	(26.7 - 33.7)
No Disability	2898	20.7	(18.8 - 22.8)
<b>Age (p=0.0002)</b>			
18-44	1517	22.4	(19.7 - 25.3)
45-64	1580	19.4	(17.3 - 21.8)
65-74	446	27.7	(23.2 - 32.7)
75+	381	30.0	(25.2 - 35.3)
<b>Gender (p=0.0019)</b>			
Male	1518	25.6	(22.9 - 28.5)
Female	2452	20.1	(18.1 - 22.1)
<b>Race/Ethnicity (p=0.0000)</b>			
White, non-Hisp	3326	20.0	(18.4 - 21.8)
non-White or Hisp	589	36.6	(31.1 - 42.4)
<b>Education (p=0.0000)</b>			
< High School	476	44.4	(38.6 - 50.3)
Hi Sch/Some College	2017	23.3	(21.0 - 25.7)
>= College Grad.	1472	14.5	(12.1 - 17.3)
<b>Household Income (p=0.0000)</b>			
< \$25,000	953	40.3	(36.2 - 44.5)
\$25,000-\$49,999	981	24.2	(21.1 - 27.7)
>= \$50,000	1517	13.0	(10.8 - 15.5)
<b>Dental Insurance (p=0.0000)</b>			
Yes	2748	14.7	(13.0 - 16.4)
No	1182	40.1	(36.4 - 43.8)

\* n: Sample Size  
# Weighted Percent  
\* CI : Confidence Interval.

## Results

Table 2. Logistic Regression Analysis Results: Adjusted Odds Ratios (AORs) for Factors Associated with Not Having a Dentist Visit in Past Year

	AOR	(95% CI) <sup>#</sup>
<b>Disability</b>		
Have Disability	1.07	(0.83 - 1.37) <sup>NS</sup>
No Disability	Reference	
<b>Age</b>		
18-44	Reference	
45-64	0.89	(0.69 - 1.15) <sup>NS</sup>
65-74	0.89	(0.62 - 1.28) <sup>NS</sup>
75+	0.70	(0.47 - 1.03) <sup>NS</sup>
<b>Gender</b>		
Male	1.42	(1.12 - 1.80)**
Female	Reference	
<b>Race/Ethnicity</b>		
White, non-Hisp	Reference	
non-White or Hisp	1.34	(0.92 - 1.96) <sup>NS</sup>
<b>Education</b>		
< High School	2.14	(1.41 - 3.25)***
Hi Sch/Some College	1.30	(0.96 - 1.77) <sup>NS</sup>
>= College Grad.	Reference	
<b>Household Income</b>		
< \$25,000	2.42	(1.62 - 3.62)***
\$25,000-\$49,999	1.57	(1.14 - 2.16)**
>= \$50,000	Reference	
<b>Dental Insurance</b>		
Yes	Reference	
No	3.10	(2.39 - 4.03)***

\* CI : Confidence Interval.  
NS: Not Significant; \* P < .05; \*\* P < .01; \*\*\* P < .001.

- Overall, 22.7% of Rhode Island adults, an estimated 190,000 adults, did not have a dentist visit in the past year (Figure 1).
- In bivariate analyses (Table 1), the proportions not having a dentist visit in the past year were significantly higher among persons with disabilities, older people, males, non-whites or Hispanics, persons with less education, persons with low incomes, or persons without dental insurance, than among their counterparts.

- In the multivariate logistic regression model (Table 2), persons with disabilities no longer had an increased likelihood of not having a dentist visit compared with the non-disabled (AOR=1.07, 95% CI: 0.83-1.37), when controlling for socio-demographic factors (age, gender, race/ethnicity, education, and household income) and dental insurance status.
- Dental insurance status was the most significant predictor for not having a dentist visit in the past year, followed by household income, education, and gender when all other factors were considered (Table 2).

## Conclusions

- Lower oral health care utilization among people with disabilities was not explained by disability status per se, but it was explained by socio-economic-demographic characteristics of this population.
- People with disabilities, on average, have lower education, lower income, and are less likely to have dental insurance coverage, all of which will contribute to lack of regular oral health care.
- Further research is needed to investigate the barriers to oral health care for people with disabilities (e.g., accessibility problem).